

generating a look-up table comprising an interpolated accumulated error value for each of a desired set of estimated input power levels and input frequencies using said calibration data; and  
storing the look-up table in the modem.

2. (twice amended) The method of claim 1, further comprising obtaining an estimated input power using a current input frequency and an interpolated accumulated error value that is closest to a current accumulated error value as inputs to said look-up table.

5. (twice amended) The method of claim 1, wherein generating a look-up table comprises interpolating additional calibration data using calibration data taken from actual operation of said modem.

22. (twice amended) A cable modem device, comprising:  
a tuner that tunes to an input signal;  
a modem coupled to the tuner, the modem having a receiver with an automatic gain control (AGC) circuit and a memory; and  
a look-up table stored in the memory, the look-up table comprising an interpolated accumulated error value for each of a desired set of estimated input power levels and input frequencies;

wherein said look-up table is used to compute an estimated input power to the receiver using a current input frequency and an interpolated accumulated error value that is closest to a current accumulated error value.

23. (twice amended) The cable modem device of claim 22, wherein data in said look-up table is stored in the memory as 8-bit data.

24. (twice amended) The cable modem device of claim 23, wherein the memory also contains a maximum value and a minimum value for input frequency and input power level, wherein said maximum and minimum values are used to scale the 8-bit data.

25. (once amended) The cable modem device of claim 22, wherein said look-up table is generated from actual operation of said modem.

#### REMARKS

This is a full and timely response to the final Official Action mailed **September 25, 2002** (Paper No. 11). A petition and the requisite fee are filed herewith to extend the time for response by one month. Reconsideration of the application in light of the foregoing amendments and the following remarks is respectfully requested.